

SPOROTRICHOSIS IN CHILDREN

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Sporotrichosis is a fungus disease well known in the Witwatersrand area of the Transvaal. It occurs predominantly in adults and the great majority of cases have occurred in underground mine workers. Over the years large outbreaks of sporotrichosis, in certain mines of the Witwatersrand, have practically assumed epidemic form.

Only cutaneous and lymphangitic sporotrichosis have been encountered, and visceral and systemic sporotrichosis must be very rare indeed in the Transvaal.

The clinical features of sporotrichosis in adults are, in the majority of cases, so clear and well defined that the diagnosis does not present any great difficulty. The primary ulcerating granuloma is followed by a marked linear thickening of the lymphatic channels draining the area and

by the development of subcutaneous nodules, which may ulcerate, along the thickened lymphatic cord.

In doubtful cases the presence, detected by direct microscopic examination, of *Sporotrichum schenckii* in the secretions of the primary granuloma or a positive culture from the secretion or from a scraping or biopsy of the primary lesion, or from the aspiration of one of the lymphangitic nodules, would conclusively establish the diagnosis.

Sporotrichosis in children is rare. The possibility of sporotrichosis in these cases is not even considered and it may, therefore, remain undiagnosed and untreated for long periods of time. The clinical features of the disease to be described in 3 children seen during the past 4 years,

moreover, show certain deviations from the characteristic clinical features in the adult, which would add to the difficulty of diagnosis.

Case 1

A boy aged 6 years injured his knee on the ground while playing. According to his mother, a progressively enlarging heaped-up 'sore' developed over the area of the trauma. The diagnosis made was that of a post-traumatic granuloma pyogenicum. The lesion had been treated for 4 months by antibacterial, antiseptic and antibiotic topical and internal therapy without result.

An examination showed a large fungating granulomatous tumour, well raised above the surface of the normal skin and exuding a viscous sero-pus, on the anterior aspect of the left knee. There was an absence of any thickening of the draining lymphatics. The general health remained very good.

An examination of the secretion was negative for sporotrichosis. A biopsy of the granulomatous tumour, on culture, showed the presence of *Sporotrichum schenckii*.

Potassium iodide, slowly increasing in dosage to 30 grains per day, caused resolution within 6 weeks.

Case 2

A young girl aged 3 years presented with a large infiltrated nodular granulomatous plaque on the flexor aspect of the left lower leg. There was no thickening of the regional lymphatic vessels.

There was no history of trauma. The lesion had been treated as a 'veld-sore' for a period of 6 months by various topical and internal remedies.

Direct microscopic examination of the secretion was negative for sporotrichosis. A biopsy scraping of the ulcer was positive for the sporotrichum on culture.

An uneventful recovery followed potassium iodide therapy after a period of 8 weeks.

Case 3

A young girl aged 6 years presented with a persistent ulcer of the right forearm of 4 months' duration. Various therapeutic measures had been adopted during this period on the presumed diagnosis of a chronic pyococcal ulceration of the skin.

An examination revealed a serpiginous nodular granulomatous ulcer, with some degree of healing and fibrosis, on the flexor aspect of the right forearm about 5 cm. above the ulnar aspect of the wrist. There was no lymphangitic spread from the initial ulcer.

Serological tests for tertiary syphilis were negative. A direct smear failed to reveal the sporotrichum. A culture was also negative, which could well be explained by the scarring and fibrosis which had occurred.

The immediate favourable response to potassium iodide therapy, the exclusion of syphilis serologically, of tuberculosis

of the skin on histological examination and of other mycotic granulomata bacteriologically, strongly pointed to the diagnosis of sporotrichosis.

SUMMARY

Three cases of sporotrichosis in children are briefly described. The only clinical sign present was that of a chronic non-healing granulomatous ulcer, exuding sero-pus, on the lower limb in 2 cases and on the upper limb in one case.

The characteristic thickened lymphatic cord draining the area of the primary granuloma, with subcutaneous nodules along its course, as frequently encountered in adults, was absent in all the cases. Garrett and Robbins,¹ in a series of 8 cases of sporotrichosis, found the lymphangitic form in one case only.

Direct microscopic examination of the secretion for the sporotrichum was negative in the 3 cases. It was positive on culture in 2 cases, and the diagnosis in the third case was made by a process of exclusion of other possible aetiological causes, and by the therapeutic response to potassium iodide therapy.

Paul D. Ellner,² in 8 cases of sporotrichosis, failed to find the sporotrichum by direct microscopic examination of the smears in any one case, but by culture a positive result was obtained in 5 cases.

The clinical features and the response to therapy established the diagnosis in the remaining 3 cases.

A similar difficulty in finding the sporotrichum by direct microscopic examination from the secretions has been mentioned by Robinson.³

The 3 cases in these children were treated for periods of many months as pyogenic skin infections and the possible diagnosis of sporotrichosis was not considered.

A history of trauma was obtained in one case only. Minor unobserved injuries from wood splinters or from plants may have occurred in the other two cases.

It is advisable that the diagnosis of sporotrichosis should be considered in a chronic granulomatous ulcer of the upper or lower limbs in children in whom antibacterial and antibiotic therapy has been ineffective after thorough trial.

A culture for the sporotrichum will be positive in the majority of cases.

The therapeutic test by the administration of potassium iodide will assist considerably in the final attempt at a correct diagnosis.

The sporotrichin skin test and the serum agglutination test for sporotrichosis are not employed in this country in the diagnosis of sporotrichosis. They have been stated to have been of value in America.⁴

REFERENCES

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